

Appln No. 10/616,639

Amdt date September 16, 2004

Reply to Office action of June 17, 2004

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A deflection yoke for a cathode ray tube including a ferrite core having a funnel-shaped body , an inner surface, and an outer surface, the inner surface of a cross section of the ferrite core comprising:

a first section having, along a length thereon, ~~the~~ a shape of a circle with a predetermined, unvarying radius;

a second section having, along a length thereon, ~~the~~ a shape of a circle with a varying radius, the second section being connected to the first section; and

a third section having a non-circular shape and being connected to the second section.

2. (Currently Amended) ~~The~~ A deflection yoke ~~of claim 1~~ for a cathode ray tube including a ferrite core having a funnel-shaped body , an inner surface, and an outer surface, the inner surface of a cross section of the ferrite core comprising:

a first section having, along a length thereon, a shape of a circle with a predetermined, unvarying radius;

a second section having, along a length thereon, a shape of a circle with a varying radius, the second section being connected to the first section; and

a third section having a non-circular shape and being connected to the second section, wherein the third section of

Appln No. 10/616,639

Amdt date September 16, 2004

Reply to Office action of June 17, 2004

the inner surface has ~~the~~ a shape of interconnected segments of three circles, each of a different radius.

3. (Currently Amended) The deflection yoke of claim 2, wherein each said different radius of the third section increases from one end of the third section connected to the second section to an opposite end.

4. (Currently Amended) ~~The~~ A deflection yoke ~~of claim 1~~ for a cathode ray tube including a ferrite core having a funnel-shaped body , an inner surface, and an outer surface, the inner surface of a cross section of the ferrite core comprising:

a first section having, along a length thereon, a shape of a circle with a predetermined, unvarying radius;

a second section having, along a length thereon, a shape of a circle with a varying radius, the second section being connected to the first section; and

a third section having a non-circular shape and being connected to the second section, wherein the third section of the inner surface has ~~the~~ a shape of a segment of a circle and two substantially straight lines.

5. (Currently Amended) ~~The~~ A deflection yoke ~~of claim 1~~ for a cathode ray tube including a ferrite core having a funnel-shaped body , an inner surface, and an outer surface, the inner surface of a cross section of the ferrite core comprising:

a first section having, along a length thereon, a shape of a circle with a predetermined, unvarying radius;

Appln No. 10/616,639

Amdt date September 16, 2004

Reply to Office action of June 17, 2004

a second section having, along a length thereon, a shape of a circle with a varying radius, the second section being connected to the first section; and

a third section having a non-circular shape and being connected to the second section, wherein the third section has the a shape of interconnected segments of three circles and two substantially straight lines.

6. (Currently Amended) The deflection yoke of claim 1, wherein the first and second sections have surfaces rougher ~~surface~~ than a surface of the third section.

7. (Original) The deflection yoke of claim 1, further comprising a horizontal deflection coil, a vertical deflection coil, and an insulating member interposed between the horizontal and the vertical deflection coils.

8. (Currently Amended) The deflection yoke of claim ~~6~~7, wherein the horizontal and the vertical deflection coils have a shape similar to a shape of the insulating member.

9. (Currently Amended) The deflection yoke of claim ~~6~~7, wherein the horizontal and the vertical deflection coils include a pair of coil members.

10. (Canceled)

Appln No. 10/616,639

Amdt date September 16, 2004

Reply to Office action of June 17, 2004

11. (Currently Amended) ~~The A deflection yoke of claim 10~~  
for a cathode ray tube including a ferrite core having a funnel-  
shaped body, an inner surface and an outer surface, the inner  
surface of the ferrite core comprising:

a first section formed as having, along a length thereon, a  
shape of a circle with a varying radius; and

a second section having a non-circular shape and being  
connected to the first section, wherein the second section of  
the inner surface has the a shape of interconnected segments  
three circles, each of a different radius.

12. (Currently Amended) ~~The A deflection yoke of claim 10~~  
for a cathode ray tube including a ferrite core having a funnel-  
shaped body, an inner surface and an outer surface, the inner  
surface of the ferrite core comprising:

a first section formed as having, along a length thereon, a  
shape of a circle with a varying radius; and

a second section having a non-circular shape and being  
connected to the first section, wherein the second section of  
the inner surface has the a shape of a segment of a circle and  
two substantially straight lines.

13. (Currently Amended) ~~The A deflection yoke of claim 10~~  
for a cathode ray tube including a ferrite core having a funnel-  
shaped body, an inner surface and an outer surface, the inner  
surface of the ferrite core comprising:

a first section formed as having, along a length thereon, a  
shape of a circle with a varying radius; and

Appln No. 10/616,639

Amdt date September 16, 2004

Reply to Office action of June 17, 2004

a second section having a non-circular shape and being connected to the first section, wherein the second section of the inner surface has ~~the~~ a shape of interconnected segments of three circles and two substantially straight lines.

14-17 (Canceled)

18. (Currently Amended) A cathode ray tube comprising:  
a substantially rectangular panel;  
a funnel connected to the panel and having a cone shape;  
a neck connected to the funnel;  
a deflection yoke mounted to an outer circumference of the funnel; and

a ferrite ~~coil~~ core mounted to a side of the deflection yoke, wherein the ferrite core includes a body having an inner surface and an outer surface, the inner surface comprising:

a first section having, along a length thereon, ~~the~~ a shape of a circle with a predetermined, unvarying radius;

a second section having, along a length thereon, the shape of a circle with a varying radius, the second section being connected to the first section; and

a third section having a non-circular shape and being connected to the second section.

19. (Currently Amended) ~~The~~ A cathode ray tube ~~of claim 18~~ comprising:

a substantially rectangular panel;

a funnel connected to the panel and having a cone shape;

Appln No. 10/616,639

Amdt date September 16, 2004

Reply to Office action of June 17, 2004

a neck connected to the funnel;  
a deflection yoke mounted to an outer circumference of the  
funnel; and  
a ferrite core mounted to a side of the deflection yoke,  
wherein the ferrite core includes a body having an inner surface  
and an outer surface, the inner surface comprising:  
a first section having, along a length thereon, a shape of  
a circle with a predetermined, unvarying radius;  
a second section having, along a length thereon, the shape  
of a circle with a varying radius, the second section being  
connected to the first section; and  
a third section having a non-circular shape and being  
connected to the second section, wherein the third section of  
the inner surface has ~~the~~ a shape of interconnected segments of  
three circles, each of a different radius.

20. (Currently Amended) The A cathode ray ~~tube of claim 18~~  
comprising:

a substantially rectangular panel;  
a funnel connected to the panel and having a cone shape;  
a neck connected to the funnel;  
a deflection yoke mounted to an outer circumference of the  
funnel; and  
a ferrite core mounted to a side of the deflection yoke,  
wherein the ferrite core includes a body having an inner surface  
and an outer surface, the inner surface comprising:  
a first section having, along a length thereon, a shape of  
a circle with a predetermined, unvarying radius;

**Appln No. 10/616,639**

**Amdt date September 16, 2004**

**Reply to Office action of June 17, 2004**

a second section having, along a length thereon, the shape of a circle with a varying radius, the second section being connected to the first section; and

a third section having a non-circular shape and being connected to the second section, wherein the third section of the inner surface has ~~the~~ a shape of a segment of a circle and two substantially straight lines.